

What is claimed is:

*Sub B1*  
1. A vehicle axle beam and drum brake assembly,

comprising:

5 a pneumatic brake actuator cylinder provided with an actuator rod extending therefrom;

a brake actuating shaft having a first end and a second end;

a brake actuating lever interconnecting said actuator rod and said first end of said brake actuating shaft;

10 an S-cam secured to said second end of said brake actuating shaft;

a brake spider non-removably secured to said axle beam and adapted to support a brake assembly, said brake spider including a pivoting end support plate and an actuator support 15 plate provided with an opening for receiving said brake actuating shaft therethrough;

20 a mounting sleeve having a first end and a second end, said first end of said mounting sleeve is secured to said pneumatic brake actuator cylinder and said second end of said mounting sleeve is secured to said actuator support plate of said brake spider, said brake actuating shaft rotationally

*B-6*

supported and positioned within said mounting sleeve;  
a pair of brake shoes pivotally supported on said pivoting end support plate of said brake spider, said brake shoes adapted to frictionally engage a bearing surface of a  
5 brake drum; and  
a cam follower secured on each of said shoes and adapted to interfit with an outer surface of said S-cam, wherein when said actuator rod is extended, said brake actuating shaft and said S-cam rotate about the longitudinal  
10 axis such that said brake shoes are brought into frictional engagement with said bearing surface.

2. The vehicle axle beam and drum brake assembly as defined in claim 1, wherein said brake spider is welded to  
15 said axle beam.

3. The vehicle axle beam and drum brake assembly as defined in claim 1, wherein said brake spider is an integral part of an integrated one-piece axle spindle and brake spider  
20 assembly fixedly secured to said axle beam.

*BU*  
4. The vehicle axle beam and drum brake assembly as defined in claim 1, further comprising:

a first mounting bracket attached to said first end of said mounting sleeve; and  
5 a second mounting bracket attached to said second end of said mounting sleeve.

5. The vehicle axle beam and drum brake assembly as defined in claim 4, wherein said first mounting bracket is fastened to said pneumatic brake actuator cylinder.

10 15 6. The vehicle axle beam and drum brake assembly as defined in claim 4, wherein said second mounting bracket is fastened to said actuator support plate of said brake spider.

7. The vehicle axle beam and drum brake assembly as defined in claim 1, wherein said actuator support plate of said brake spider, is axially offset from said pivoting end support plate.

20 *BU* 8. A vehicle axle beam and drum brake assembly, comprising:

*Brake*  
a pneumatic brake actuator cylinder provided with an actuator rod extending therefrom;

a brake actuating shaft having a first end and a second end;

5 a brake actuating lever interconnecting said actuator rod and said first end of said brake actuating shaft; an S-cam secured to said second end of said brake actuating shaft;

a brake spider welded to said axle beam and adapted to 10 support a brake assembly, said brake spider including a pivoting end support plate and an actuator support plate provided with an opening for receiving said brake actuating shaft therethrough, said actuator support plate being axially offset from said pivoting end support plate;

15 a mounting sleeve having a first end and a second end, said first end of said mounting sleeve is secured to said pneumatic brake actuator cylinder and said second end of said mounting sleeve is secured to said actuator support plate of said brake spider, said brake actuating shaft rotationally supported and positioned within said mounting sleeve;

20 a first mounting bracket attached to said first end of said mounting sleeve, said first mounting bracket is fastened

to said pneumatic brake actuator cylinder;

a second mounting bracket attached to said second end of said mounting sleeve, said second mounting bracket is fastened to said actuator support plate of said brake spider;

5 a pair of brake shoes pivotally supported on said pivoting end support plate of said brake spider, said brake shoes adapted to frictionally engage a bearing surface of a brake drum; and

10 a cam follower secured on each of said shoes and adapted to interfit with an outer surface of said S-cam, wherein when said actuator rod is extended, said brake actuating shaft and said S-cam rotate about the longitudinal axis such that said brake shoes are brought into frictional engagement with said bearing surface.

15